

NPPTL COVID-19 Response: International Respirator Assessment

Manufacturer: Shanghai Dasheng Health Products Manufacture Co., Ltd.

Model Tested: DTC3X

Date Tested: July 28 & 30, 2020

These findings pertain to the Shanghai Dasheng Health Products Manufacture Co., Ltd., model DTC3X. The packaging and labeling indicate that it is a NIOSH-approved product, under approval number TC-84A-4329. Shanghai Dasheng Health Products Manufacture Co., Ltd., through correspondence with NIOSH, has indicated that their products have been counterfeited.

Sixty respirators were submitted for evaluation. Thirty respirators were sampled into groups of ten for evaluation using the modified version of NIOSH Standard Test Procedure (STP) TEB-APR-STP-0059. This modified assessment plan can be found [here](#). Due to special circumstances with this submission, additional testing was performed. Twenty respirators were evaluated using the full version of NIOSH STP TEB-APR-STP-0059 and three respirators were evaluated for exhalation and inhalation resistance using STP TEB-APR-STP-0003 and TEB-APR-STP-0007, respectively. Seven respirators were not evaluated.

No certificate of approval was provided with the samples received; therefore, the authenticity of the claims cannot be validated.

The maximum and minimum filter efficiency was 99.93% and 99.22%, respectively. All fifty respirators, that were evaluated for filter efficiency, measured more than 95%. Exhalation and Inhalation resistance values were within the maximum allowable tolerance.

NIOSH does not have knowledge about the sustained manufacturer quality system and product quality control for these products. NIOSH also does not have knowledge about the product's handling and exposures after leaving its manufacturer's control.

This product has head bands/straps. While filter efficiency shows how well the filter media performs, users must ensure a proper fit is achieved.

This assessment is not a part of the NIOSH respirator approval process and will in no way lead to or preclude NIOSH approval through the official approval process. This assessment was developed as an assessment of the filter efficiency for those respirators represented as certified by an international certification authority, other than NIOSH, to support the availability of respiratory protection to US healthcare workers due to the respirator shortage associated with COVID-19. Only particulate filter efficiency was assessed.

The results provided in this letter are specific to the subset of samples that were provided to NPPTL for evaluation.

These results will be used to update the CDC guidance for [Crisis Capacity Strategies \(during known shortages\)](#).

Evaluation of International Respirators

Test: Modified TEB-APR-STP-0059

Date Tested: July 28, 2020

Report Prepared: August 3, 2020

Manufacturer: Shanghai Dasheng Health Products Manufacture Co., Ltd.

Item Tested: DTC3X (Sample Group 1 of 3)

Country of Certification: USA (claimed, 42 CFR 84)

Pictures have been added to the end of this report.

Filter	Flow Rate (Lpm)	Initial Filter Resistance (mmH ₂ O)	Initial Percent Leakage (%)	Maximum Percent Leakage (%)	Filter Efficiency
1	85	12.3	0.46	0.46	99.54
2	85	12.6	0.59	0.59	99.41
3	85	10.4	0.30	0.30	99.70
4	85	13.1	0.53	0.53	99.47
5	85	11.2	1.63	1.63	98.37
6	85	10.7	0.48	0.48	99.52
7	85	11.7	0.36	0.36	99.64
8	85	14.4	0.38	0.38	99.62
9	85	9.8	0.54	0.54	99.46
10	85	11.8	0.44	0.44	99.56
Minimum Filter Efficiency: 99.37			Maximum Filter Efficiency: 99.70		

- The test method utilized in this assessment is not the NIOSH standard test procedure that is used for certification of respirators. Respirators assessed to this modified test plan do not meet the requirements of STP-0059, and therefore cannot be considered equivalent to N95 respirators that were tested to STP-0059.
- Respirators tested may not be representative of all respirators with the same certification mark. NIOSH has no control over suppliers and distributors of respirators certified by other national or international parties.
- This assessment is not a confirmation that it conforms with any or all of its specifications in accordance with its certification mark.
- This assessment was not a part of the NIOSH approval program. These results do not imply nor preclude a future approval through the NIOSH respirator approval program.

Evaluation of International Respirators

Test: Modified TEB-APR-STP-0059

Date Tested: July 28, 2020

Report Prepared: August 3, 2020

Manufacturer: Shanghai Dasheng Health Products Manufacture Co., Ltd.

Item Tested: DTC3X (Sample Group 2 of 3)

Country of Certification: USA (claimed, 42 CFR 84)

Filter	Flow Rate (Lpm)	Initial Filter Resistance (mmH ₂ O)	Initial Percent Leakage (%)	Maximum Percent Leakage (%)	Filter Efficiency
11	85	10.9	0.63	0.63	99.37
12	85	10.3	0.48	0.48	99.52
13	85	16.3	0.18	0.18	99.82
14	85	13.3	0.07	0.07	99.93
15	85	13.1	0.17	0.17	99.83
16	85	11.5	0.51	0.51	99.49
17	85	13.1	0.78	0.78	99.22
18	85	11.8	0.31	0.31	99.69
19	85	11.7	0.38	0.38	99.62
20	85	12.1	0.48	0.48	99.52
Minimum Filter Efficiency: 99.22			Maximum Filter Efficiency: 99.93		

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- Respirators tested may not be representative of all respirators with the same certification mark. NIOSH has no control over suppliers and distributors of respirators certified by other national or international parties.
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Evaluation of International Respirators

Test: Modified TEB-APR-STP-0059

Date Tested: July 28, 2020

Report Prepared: August 3, 2020

Manufacturer: Shanghai Dasheng Health Products Manufacture Co., Ltd.

Item Tested: DTC3X (Sample Group 3 of 3)

Country of Certification: USA (claimed, 42 CFR 84)

Filter	Flow Rate (Lpm)	Initial Filter Resistance (mmH ₂ O)	Initial Percent Leakage (%)	Maximum Percent Leakage (%)	Filter Efficiency
21	85	13.2	0.36	0.36	99.64
22	85	14.8	0.55	0.55	99.45
23	85	12.3	0.55	0.55	99.45
24	85	13.4	0.58	0.58	99.42
25	85	12.1	0.41	0.41	99.59
26	85	12.2	0.58	0.58	99.42
27	85	9.6	0.74	0.74	99.26
28	85	10.8	0.24	0.26	99.74
29	85	10.5	0.44	0.44	99.56
30	85	9.6	0.24	0.27	99.73
Minimum Filter Efficiency: 99.26			Maximum Filter Efficiency: 99.74		

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- Respirators tested may not be representative of all respirators with the same certification mark. NIOSH has no control over suppliers and distributors of respirators certified by other national or international parties.
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Evaluation of International Respirators

Test: TEB-APR-STP-0059

Date Tested: July 30, 2020

Report Prepared: August 3, 2020

Manufacturer: Shanghai Dasheng Health Products Manufacture Co., Ltd.

Item Tested: DTC3X

Country of Certification: USA (claimed, 42 CFR 84)

Filter	Flow Rate (LPM)	Initial Filter Resistance (mmH ₂ O)	Initial Percent Leakage (%)	Maximum Percent Leakage (%)	Filter Efficiency (%)
31	85	9.5	0.37	0.58	99.42
32	85	12.7	0.23	0.23	99.27
33	85	9.2	0.38	0.48	99.52
34	85	12.0	0.48	0.48	99.52
35	85	10.3	0.64	0.64	99.36
36	85	11.7	0.64	0.64	99.36
37	85	8.9	0.33	0.42	99.58
38	85	10.3	0.36	0.36	99.64
39	85	9.7	0.29	0.33	99.67
40	85	10.2	0.31	0.36	99.64
41	85	12.4	0.19	0.19	99.81
42	85	11.3	0.23	0.25	99.75
43	85	10.5	0.33	0.38	99.62
44	85	11.9	0.26	0.26	99.76
45	85	11.7	0.46	0.46	99.54
46	85	13.4	0.34	0.34	99.66
47	85	10.1	0.51	0.56	99.44
48	85	13.5	0.15	0.15	99.85
49	85	8.9	0.26	0.33	99.67
50	85	11.1	0.47	0.47	99.53
Minimum Filter Efficiency: 99.27			Maximum Filter Efficiency: 99.85		

Evaluation of International Respirators

Test: TEB-APR-STP-0003 and TEB-APR-STP-0007

Date Tested: July 30, 2020

Report Prepared: August 3, 2020

Manufacturer: Shanghai Dasheng Health Products Manufacture Co., Ltd.

Item Tested: DTC3X

Country of Certification: USA (claimed, 42 CFR 84)

Filter	Maximum Allowable Exhalation Resistance (mm of H₂O)	Actual Exhalation Resistance (mm of H₂O)	Maximum Allowable Inhalation Resistance (mm of H₂O)	Actual Inhalation Resistance (mm of H₂O)
51	20	9.4	35	9.9
52	20	11.4	35	11.4
53	20	10.9	35	11.4

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